determining by the plurality of physical end nodes that are not the destination of the packet that the IP packet is not for them.

25. (Previously Amended) The method of claim 24 further comprising:

ignoring the IP packet by the physical end nodes that are not the destination of the packet.

26. (Previously Amended) The method of claim 21 wherein the step of sending is accomplished by using internet protocol routing.

27. (Previously Amended) The method of claim 21 wherein the step of transmitting by the access point is transmitting by the access point via a wireless link.

28. (Amended Twice) A RF network comprising:

a wired network;

a first access point operable for communication via a first wireless link;

a first plurality of physical end nodes communicating with the first access point via the first wireless link, sharing a first virtual internet protocol address and, each, having a separate destination identification included within a data field of any IP packets intended for the corresponding physical end node; and

a second access point connected to the wired network and to the first access point via a second wireless link.

29. (Previously Amended) The RF network of claim 28 further comprising:

a second plurality of physical end nodes communicating with the second access point via the second wireless link, sharing a second virtual internet protocol address and having separate identifications.

REMARKS

The present amendment is in response to the Official Action dated November 6, 2002, wherein the Examiner rejected pending claims 21-29 as being unpatentable over Baker et al., US

Patent No. 5,570,366, in view of McCreery et al., US Patent No. 5,787,253. However, as presently amended, Baker et al., '366, in view of McCreery et al., '253, do not make known or obvious the claims of the present application. Reexamination and reconsideration of the above-identified application, in view of the present remarks, are hereby requested.

Baker et al., '366, discloses a bridge-based access point, which provides broadcast/multicast filtering. Each access point maintains a table of entries, where each entry corresponds to a mobile, which is presently associated with the access point. The access point limits the broadcasting of messages within a relatively lower bandwidth wireless portion of the network, when there are no mobile units associated with the access point, that will respond to and/or act upon the message.

The Examiner correctly notes that Baker et al., '366, fails to teach or suggest decoding, by the plurality of physical end nodes the data field of the IP packet. However, the reference additionally fails to teach or suggest decoding of the data field by the plurality of physical end nodes, where the decoded data field includes a destination identification, which is used to identify whether the physical end unit is the destination of the IP packet. While the Examiner suggests that the deficiency in Baker et al., '366, is overcome by the teachings of McCreery et al., '253, where McCreery generally provides for the decoding of an IP packet, neither reference teaches or suggests the inclusion of a destination identification in the data field of the IP packet for use of identifying the destination of the packet.

By including a destination identification in the IP packet data field, it is not necessary to separately identify each of the physical end unit by an IP address. A common virtual internet protocol address, which corresponds to the group of physical end nodes served by the access point will suffice for purposes of routing the packet to the appropriate access point and causing the packet to be transmitted to each of the physical end units. The associated physical end units then decode the data field to determine the intended destination of the message, and either acts upon or ignores the transmitted packet, accordingly. In this way the need and usage of unique IP addresses is reduced and/or minimized.

Relative to claim 28, the references cited by the Examiner similarly fail to teach or suggest a separate destination identification for each of the plurality of physical end nodes, that is

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included within the data field of the data messages intended for the corresponding physical end node.

The claims, as presently amended, are allowable over the prior art of record, for the reasons noted above. Allowance of the application is respectfully requested. Should any issues remain in dispute after consideration of the present response, the Examiner is requested to contact the applicants' representative at the telephone number noted below.

Respectfully submitted,
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Claims 21 and 28 have been amended as follows:

21. (Amended Twice) A method for sending an IP packet to a physical end node comprising the steps of:
    creating the IP packet comprising:
          a virtual internet protocol address corresponding to a plurality of physical end nodes served by a first access point; and
              a data field comprising:
                    a destination identification corresponding to one of the physical end nodes of the plurality of physical end nodes, said one of the physical end nodes being a destination for the IP packet; and
                    user data;
    [sending the IP packet over a first RF network to the first access point;
    wirelessly transmitting, by the first access point, the IP packet to a second access point;
    alternatively transmitting by the first access point the IP packet to a second network, the second network being wired;]
    communicating the IP packet to a first access point, serving a plurality of physical end nodes, over an RF network including one or more access points, communicatively coupled to one another, wherein at least some of the access points, each, serve one or more physical end nodes, via one or more wireless communication links, and one or more of the access points are connected to a wired network;
    transmitting, by the first access point, the IP packet;
    decoding, by the plurality of physical end nodes served by the first access point, the data field of the IP packet for determining the destination identification of the IP packet; and
    determining by each of the plurality of physical end nodes whether it is the destination for the IP packet.

28. (Amended Twice) A RF network comprising:
    a wired network;
    a first access point [connected to the wired network and] operable for communication via a first wireless link;
    a first plurality of physical end nodes communicating with the first access point via the first wireless link, sharing a first virtual internet protocol address and, each, having a separate [identifications] destination identification included within a data field of any IP packets intended for the corresponding physical end node; and
    a second access point connected to the wired network and to the first access point via a second wireless link.